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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Mark A. Boerger

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EXAMINER

DOAN, TRANG T

ART UNIT

PAPER NUMBER

2431

MAIL DATE

DELIVERY MODE

01/06/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/814,315	Applicant(s) BOERGER, MARK A.	
	Examiner TRANG DOAN	Art Unit 2431	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 08/18/2008.
2. Claims 1-13 are pending for consideration.

Response to Arguments

3. Applicant's arguments filed on 08/18/2008 have been fully considered but they are not persuasive.
4. Applicant argues that PSWN reference does not teach a universal asynchronous receiver transmitter peripheral for communicating with a key variable loader through at least one communications link and for transmitting and receiving key commands from the KVL. The Examiner respectfully disagrees. PSWN does teach a universal asynchronous receiver transmitter peripheral for communicating with a key variable loader through at least one communications link and for transmitting and receiving key commands from the KVL (PSWN: See page 5: the encryption key is inserted ("filled") into each radio with the key variable loader which must be physically connected to each subscriber unit). The key variable loader described in PSWN is communicated with subscriber unit to distribute encryption keys, which is broadly interpreted as transmitting and receiving key commands from the KVL.
5. Applicant argues that PSWN does not teach detecting a first signal at a universal asynchronous receiver transmitter within the electronic device. The Examiner respectfully disagrees. PSWN describes the process where the key variable loader is physically connected to the subscriber unit to distribute encryption keys. In order to

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distribute encryption keys, signals between the key variable loader and the subscriber unit must be detected (PSWN: See page 5 and page 6).

6. Applicant argues that PSWN does not teach a driver application associated with the UART peripheral for receiving and transmitting commands to the KVL... and wherein the driver application operates to communicate key command information to the KVL without the use of a timer peripheral. The Examiner respectfully disagrees. PSWN does teach a driver application associated with the UART peripheral for receiving and transmitting commands to the KVL... and wherein the driver application operates to communicate key command information to the KVL without the use of a timer peripheral (PSWN: See pages 5-11).

7. Applicant argues that PSWN does not teach detection signals involved with a UART peripheral. The Examiner respectfully disagrees. PSWN does teach detection signals involved with a UART peripheral (PSWN: See pages 5-11).

8. Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by PSWN ("Introduction to Encryption Key Management for Public Safety Radio Systems", 2001) (hereinafter PSWN).

Regarding claim 1, PSWN discloses an encryption key interface system comprising: a universal asynchronous receiver transmitter (UART) peripheral for communicating with a key variable loader (KVL) through at least one communications link (PSWN: See page 5, section 3.2 "Key Distribution" and page 6, first paragraph: encryption key is inserted ("filled") into each radio with key variable loader (KVL) which must be physically connected to each subscriber unit); a driver application associated with the UART peripheral for receiving and transmitting commands to the KVL (PSWN: See page 5, section 3.2 "Key Distribution" and page 6, first paragraph); and wherein the driver application operates to communicate key command information to the KVL without the use of a timer peripheral (PSWN: See page 5, section 3.2 "Key Distribution" and page 6, first paragraph).

Regarding claim 2, PSWN further discloses comprising: a key management application for communication with the driver application for managing the key

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management information (PSWN: See page 5, section 3.2 “Key Distribution”, page 6, first paragraph and page 9, second and third paragraph).

Regarding claim 3, PSWN further discloses comprising: a general purpose input output (GPIO) peripheral for communicating with the KVL to detect when the KVL is connected with the interface (PSWN: See page 5, section 3.2 “Key Distribution” and page 6, first paragraph).

Regarding claim 4, PSWN further discloses comprising: a KVL detection application for managing operation of the GPIO peripheral (PSWN: page 9, second and third paragraph).

Regarding claim 5, PSWN further discloses wherein the UART peripheral and the GPIO peripheral communicate with the KVL over separate data links (PSWN: See page 5, section 3.2 “Key Distribution”, page 6, first paragraph and page 9, second and third paragraph).

Regarding claim 6, PSWN discloses an encryption key interface incorporated within an electronic device for communicating with a key variable loader (KVL) comprising: a universal asynchronous receiver transmitter (UART) peripheral for transmitting and receiving key commands from the KVL (PSWN: See page 5, section 3.2 “Key Distribution”, page 6, first paragraph and page 9, second and third paragraph); a KVL driver application for communicating command information to the UART peripheral; a KVL management application operating with the KVL driver application for interpreting key command data from the KVL (PSWN: See page 5, section 3.2 “Key Distribution” and page 6, first paragraph); and wherein the KVL driver operates without

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a timer peripheral enabling the UART peripheral to utilize parity error information to validate communication with the KVL (PSWN: See page 5, section 3.2 “Key Distribution”, page 6, first paragraph and page 9, second and third paragraph).

Regarding claim 7, PSWN further discloses comprising: a general purpose input output peripheral operating with a KVL detection application for detecting when a KVL is initiating communication with the electronic device (PSWN: See page 5, section 3.2 “Key Distribution” and page 6, first paragraph).

Regarding claim 8, PSWN further discloses wherein the UART peripheral and GPIO peripheral communicate with the KVL over separate communications links (PSWN: See page 5, section 3.2 “Key Distribution” and page 6, first paragraph).

Regarding claim 9, PSWN discloses a method for using an encryption key interface for communicating key encryption information from a variable key loader (KVL) to an electronic device comprising the steps of: detecting a first detection signal at a universal asynchronous receiver transmitter (UART) within the electronic device (PSWN: See page 5, section 3.2 “Key Distribution”, page 6, first paragraph and page 9, second and third paragraph); transmitting data from the KVL to the UART (PSWN: See page 5, section 3.2 “Key Distribution” and page 6, first paragraph); transmitting a second detection signal from the UART to a KVL application when the UART detects a receive data byte (PSWN: See page 5, section 3.2 “Key Distribution” and page 6, first paragraph); transmitting a third detection signal from the UART to the KVL application indicating all data has been received (PSWN: See page 5, section 3.2 “Key Distribution” and page 6, first paragraph); and transmitting a fourth detection signal from the UART to

a KVL link layer application for sending subsequent data until all data has been transmitted by the UART (PSWN: See page 5, section 3.2 “Key Distribution”, page 6, first paragraph and page 9, second and third paragraph).

Regarding claim 10, PSWN further discloses wherein the first detection signal is a break detect indicating a unique KVL signature (PSWN: See page 5, section 3.2 “Key Distribution” and page 6, first paragraph).

Regarding claim 11, PSWN further discloses wherein the second detection signal is a receive data interrupt command indicating to the UART that data has been transmitted from the KVL (PSWN: See page 5, section 3.2 “Key Distribution”).

Regarding claim 12, PSWN further discloses wherein the third detection signal is idle pattern detect indicating a predetermined number of idle byte times have been received by the UART (PSWN: See page 5, section 3.2 “Key Distribution” and page 6, first paragraph).

Regarding claim 13, PSWN further discloses wherein the fourth detection signal is idle pattern detect indicating to continue transmitting another byte in the response message (PSWN: See page 5, section 3.2 “Key Distribution”, page 6, first paragraph and page 9, second and third paragraph).

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRANG DOAN whose telephone number is (571)272-0740. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Trang Doan/

Examiner, Art Unit 2431

/Syed Zia/

Primary Examiner, Art Unit 2431